Health Science

People with careers in Health Science promote health and wellness, diagnose and treat injuries and/or diseases. Meet a few Health Science professionals on Eye Wonder.
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About the Series

Eye Wonder excites students with interesting facts and just plain fun! The series explores science and integrates technology, while focusing on various careers. The videos are less than 10 minutes and are filmed through the eyes of the cameraman, D.V.

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Athletic Trainer (8:20)
The Eye Wonder team learns more about the routine of an athletic trainer. D.V. follows a certified athletic trainer to learn about all of the different types of equipment in the training room and how it is used to treat and cure athletic injuries.

Emergency Air Rescue (5:57)
The Eye Wonder team learns about emergency air rescue. D.V. takes a ride in an emergency helicopter and learns all about the emergency care that takes place in the sky.

Emergency Room (8:56)
The Eye Wonder team learns what happens behind the scenes in the emergency room from the admissions process to how patients are cared for.
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Ophthalmologist (7:47)
The Eye Wonder team looks at the career of an ophthalmologist. D.V. goes to an eye exam and learns about the differences between an optometrist and an ophthalmologist.

S.C. Standards & Classroom Activities

Athletic Trainer

Grade 6

Standard: II.D.1.a.
Illustrate the parts and describe the functions of the skeletal and muscular system including bones, muscles, ligaments, joints, and tendons.

Type of Activities: Video Activity

Introduction- During the video, students will have a diagram showing the different muscles of the human body. When the athletic trainer on the
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video discusses a different method of treatment or training, the students are to mark it on their diagram.

**Background:** Athletes must warm up and cool down before and after sporting events in order to prevent injury. Even people who exercise should do so for the same reasons. Muscles are elastic. They stretch and contract, just as a rubber band does. However, in order to get maximum movement during physical activity, it is necessary to warm them up, to stretch them so that they are not pushed too far, too fast. Trainers must know a great deal about the human body, specifically the muscles and joints, in order to help athletes warm up for sporting events. They also need to treat injuries such as sprains and pulled muscles when they are pushed too hard.

**Activity:** Name that muscle.

This activity is best used during the video. The instructor will need to periodically stop the video in order to give the students time to find the different muscles on the worksheet. This is best used after students have already studied the muscles so that they do not use too much time trying to find unfamiliar muscles.

**Materials:** Worksheet showing the different muscles. You can probably find one in a health textbook or a 6th grade science book, as well as on the Internet.

**Procedures:**
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1. During the video, students will need to pay attention to each time the athletic trainer mentions a warm-up technique, muscle workout, or treatment.

2. They will need to find the muscles on their diagram that go with the method that the trainer is currently talking about.

3. After the video, students should discuss how and why each technique works on the muscles and what it does.

**Modifications:** This video would also serve for a Physical Education class about the importance of warming up to prevent injury.
Standards: Language Arts. Standards addressed by this activity are the same for grades 6, 7, and 8.

W. Writing Goal: The student will write for different audiences and purposes.

W1. The student will apply a process approach to writing.

W1.3) Demonstrate the ability to develop an extended response around a central idea, using relevant supporting details.

W1.6.1) Demonstrate the ability to write multiple-paragraph compositions, friendly letters, and expressive and informational pieces.

W2. The student will write for a variety of purposes.

W2.1) Demonstrate the ability to use writing to explain and inform.

W2.2) Demonstrate the ability to use writing to learn, entertain, and describe.

C. Communication Goal: The student will recognize, demonstrate, and analyze the qualities of effective communication.
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C3. The student will comprehend and analyze information he or she receives from nonprint sources.

C3.11) Demonstrate the ability to make connections between nonprint sources and his or her prior knowledge, other sources, and the world.

C3.9) Demonstrate the ability to evaluate how different nonprint sources influence and inform.

Type of Activity: Creative writing prompt

Introduction: Students must be able to write to convey their experiences and feelings. The purpose of this writing activity is to allow students an opportunity to describe, hypothesize, and write effectively about emergency room experiences and situations in order to alleviate possible fears and practice descriptive writing skills.

Background: Students may be frightened about being injured/sick and having to go to the emergency room. Communicating their experiences may help to alleviate the fears of others. It is also a good idea to hypothesize possible scenarios that would cause someone to have to go to the emergency room, how the injured obtains help, what happens in the emergency room, and how to prevent future emergency room visits. In addition to health concerns, emergency room services can be expensive, and attempting to understand forms, insurance information, and
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Paperwork can be confusing. Students can share ideas about injury and illness prevention so that they may avoid ending up in an emergency room.

**Activity:** Creative writing prompt

**Materials:** Eye Wonder Emergency Room video, paper, pencils

**Procedure:**

1. Invite students to watch the video, and take notes as they watch.

2. Students should construct a response to the video. They should write a one-page paper describing a fictional or factual situation in which they go to the emergency room. They should include why they had to go to the emergency room, what happened there, how long it took, and how they could keep from going to the emergency room again.

3. Go over the vocabulary words from the video with the students and require that they use a certain number of them in their writing.

3. Review vocabulary and make sure students include vocabulary from the video in their writing.

4. Students can share their papers and turn them in. Students could turn in notes from the video and vocabulary as pre-writing. Students could also turn in rough drafts and final copies. They can proofread their own papers and the papers of other students. As a closing activity, students may share their writing with the class.
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Credits

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